Please replace the paragraph on page 2, line 13 through page 3, line 5 with the following:

Radio frequency links solve many of the problems inherent in Infrared links, however, a radio frequency connection scheme is needed whereby a variety of applications can easily access the radio link through a connection mechanism that provides an appropriate interface. One protocol which defines communication between wireless devices through radio frequency links is the BLUETOOTH specification. BLUETOOTH devices do not require a line of sight with one another to operate, and their range can be significantly greater than that of IR links. However, one difficulty with the BLUETOOTH specification is that very few computer software programs are written to communicate with BLUETOOTH compliant devices. Another difficulty with the BLUETOOTH specification is that BLUETOOTH compliant devices are presented to computer software programs as serial interfaces. There are numerous situations it which such a serial presentation can be inefficient or even confusing for certain types of computer software applications, such as simple networking applications. Yet another difficulty with the BLUETOOTH specification is that, while it supports up to 30 emulated RS-232 ports, computer software programs are generally required to know how to communicate through such an emulated port in a device-specific manner.

Please replace the paragraph on page 3, lines 8-13 with the following:

Accordingly, the present invention provides a method and computer program product for providing an interface to a BLUETOOTH compliant device which can emulate a modem such that computer software programs can communicate through the BLUETOOTH

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compliant device in the same manner in which they would communicate through a standard modem to access a dial-up, wide area network.

Please replace the paragraph on page 3, lines 13-18 with the following:

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The present invention also provides a method and computer program product for providing an interface to a BLUETOOTH compliant device which can emulate a network socket such that computer software programs can communicate through the BLUETOOTH compliant device seemingly in the same manner in which they would communicate through a standard network interface card to access a local area network.

Please replace the paragraph on Page 3, lines 18-19 with the following:

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Additionally, the present invention provides a method by which the interface to a BLUETOOTH compliant device is dependent on the nature of the BLUETOOTH compliant device.

Please replace the paragraph on page 10, lines 11-20 with the following:

A6

According to the "Specification of the BLUETOOTH System" Version 1.0B (December 1,1999), incorporated herein by reference in its entirety, RFCOMM supports up to 30 emulated RS-232 (COM) port connections between any two devices. See also the "Windows Wireless Architecture" presentation at Appendix B, the " BLUETOOTH Architecture Overview" presentation at Appendix C, the " BLUETOOTH Experience in Windows" presentation at Appendix D, and the " BLUETOOTH Stack in Windows" presentation at Appendix E. However, Dial-Up Networking (DUN) connections provide specific services that are best presented as a modem. Accordingly, when a DUN profile is

A6

exposed as a COM port rather than as a modem connection, the relevant client application must have the ability to communicate in a device-specific way with a device.

Please replace the paragraph on page 10, line 21 through page 11, line 4 with the following:

A7

In keeping with an embodiment of the invention, DUN services are exposed by RFCOMM to the application as a modem connection, allowing the client application to use standard Telephony API (TAPI) and Unimodem interfaces. Thus applications and services which are not specifically adapted for use within the BLUETOOTH protocol can nonetheless utilize a communications device as a standard communications device, hiding the implementation-specific differences between BLUETOOTH and Dial-up Networking connections.

Please replace the paragraph on page 11, lines 5-17 with the following:

A8

RFCOMM is implemented as described in the "Specification of the BLUETOOTH System" Version 1.0B Part F1 entitled "RFCOMM with TS 07.10 incorporated herein by reference in its entirety and attached at Appendix A, with certain changes to effect the desired functionality. The following components, most of which appear in the architectural diagram of Fig. 3, are used to expose a BLUETOOTH RFCOMM Dial-Up Networking connection as a modem rather than as a COM port: RFCOMM.SYS (the BLUETOOTH RFCOMM driver) 301; BTHPORT.SYS (the BLUETOOTH port driver implementing L2CAP and HCI.) 303; TDI (transport device interface) 305; PnP (the "Plug'N'Play" system); BTHMDM.SYS (the BLUETOOTH modem driver) 307; and MODEM.SYS (the Unimodem driver) 309. As one of skill in the art will know, the Plug'N'Play system is a

A8

combination of hardware and software support that enables a computer system to recognize and adapt to hardware configuration changes with little or no user intervention.

Please replace the paragraph on page 11, line 18 through page 12, line 2 with the following:

When a new device conforming to the BLUETOOTH specification is detected by the computer, BTHPORT.SYS enumerates the new device as a Physical Device Object (PDO).

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As is known by those of skill in the art, a PDO represents the whole range of functionality available to a component. RFCOMM is alerted to this new device by way of BTHPORT.SYS. RFCOMM.SYS is loaded as the Functional Device Object (FDO) by the Plug'N'Play system (PnP). As is also known by those of skill in the art, an FDO represents a set of functions of device available to a function driver.

Please replace the paragraph on page 12, lines 3-11with the following:

RFCOMM examines the Service Discovery Protocol (SDP) database of the remote RFCOMM device. If the remote device is a DUN device, RFCOMM enumerates a new PDO. For BLUETOOTH LAN access points and PC's acting as LAN access points,

A10

RFCOMM.SYS enumerates a PDO that will load an instance of a Null modem device in BTHMDM.SYS. For BLUETOOTH modems acting as a Gateway (GW), RFCOMM.SYS will enumerate a PDO that will load an instance of a modem device in BTHMDM.SYS. BTHMDM.SYS communicates to RFCOMM using IO request packets (IRP's) via the TDI interface. Alternatively, BTHMDM.SYS may communicate with IRP's that are not restricted to TDI requests, but that are still Windows Driver Model (WDM) requests.

Please replace the paragraph on page 12, line 17 through page 13, line 2 with the following:

To permit peer-to-peer DUN communications between two PC's, it is preferable that one of the PC's acts as a server. The server PC preferably populates its SDP database with and appropriate DUN entry so that the client can identify and connect with it. This is preferably performed at the time that the RFCOMM driver loads, either at system start up, or at the time that the BLUETOOTH device is connected to the system. RFCOMM.SYS will automatically generate a PDO to represent the server channel to BTHMDM.SYS, such that the server software may be initialized and ready to handle an incoming connection request.

A11

Please replace the paragraph on page 13, lines 8-10 with the following:

The communication mechanism described above with reference to BLUETOOTH DUN connections also applies to dependant profiles such as the LAN access profile and the FAX profile.

A12

Please replace the paragraph on page 15, line 11-23 with the following:

Existing implementations of the BLUETOOTH specification map remote devices to a generic serial-type device. Unfortunately, proper configuration of such a system requires user knowledge regarding serial port technology. In an embodiment of the present invention, RFCOMM connections of a particular type are automatically routed to an appropriate corresponding device type within the Microsoft brand WINDOWS operating system using the SDP. Broadly, if a device is not a DUN device, then RFCOMM will allow access to that device through the TDI interface. This access is extended to user mode by AFD.SYS (standard Winsock service provider for transports). In order to allow TDI's addressing model to multiplex

A13

multiple connections to the same RFCOMM channel on different RFCOMM sessions, the RFCOMM channel number/remote BLUETOOTH address pair of the endpoint uniquely identifies each RFCOMM connection. In contrast to the DUN profile, Winsock and AFD will be required to create device objects and handles in a mechanism consistent with existing TDI applications.

In the Abstract:

Please replace the Abstract with the new Abstract in Appendix C.

In the Claims:

Please amend claims 1-3 to read as follows:

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1. (Once Amended) For use in a computer, a method of exposing a dial-up networking device to an application as a modem via RFCOMM, the method comprising the steps of:

detecting a new connection to a remote device;

determining whether the remote device is a dial-up networking device; and

instantiating an intermediary between the application and RFCOMM if the remote device is a dial-up networking device, wherein the intermediary interfaces to the application as a modem interface but interfaces to lower levels as an RS-232 connection.

2. (Once Amended) For use in a computer, a method of automatically exposing a remote device to an application through sockets via RFCOMM, the method comprising the steps of:

detecting a new connection to the remote device;

determining whether the remote device is a dial-up networking device; and

if the remote device is not a dial-up networking device, allowing the application access to the remote device through an interface to a transport layer of the computer.